Improving ICT Deflators in the National Accounts



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BEA Advisory Committee
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Strategy



- Recent empirical literature on price indexes has opened up opportunities for BEA to obtain resources to improve our price deflators.
- We have just begun to identify ICT segments of particular interest and have found promising data sources that we will study with the BLS
- Today, I'll briefly discuss our current plans for three ICT segments:
 - Software, where traditional data sources exist
 - Wireless plans and cell phones
 - Medical equipment

Software



- We have purchased three types of data:
 - NPD SKU-level scanner data for pre-packaged software purchased by consumers (Prud'homme and Yu, Copeland)
 - IDC SKU-level data for pre-packaged Enterprise software purchased by US firms (StatCanada)
 - Q/P Management Contract-level data that contains information on custom software projects and performance metrics (i.e., function points)

 With the BLS, we have started exploring the potential usefulness of these data sources for price index purposes

Wireless Plans and Cell Phones



- Whistleout.com website reports information on options for cell plans and devices from major carriers:
 - Website compares prices and features of cell plan/devices combinations from major carriers in real time for consumers.
 - They will provide us with a slice of their data once a month for the next 12 months.
- Limitations of whistleout data and potential workarounds:
 - Expenditure shares not available for weights. Merge in spending data from Metafact's *Technology Usage Panel* survey?
 - Historical data not available. Scrape web archives to obtain historical data?
- Promising data source: they plan to add pricing and attributes for cable/broadband/internet services in December.

Medical Equipment



 Found ECRI, an organization that provides benchmarking services to hospitals and health plans, among other things

ECRI, an internationally recognized technology evaluation and assessment organization has ICT resources. They have over 100,000 unique items in a capital equipment pricing database of price points from hospitals and health systems which allows their member providers to confidently negotiate with suppliers.

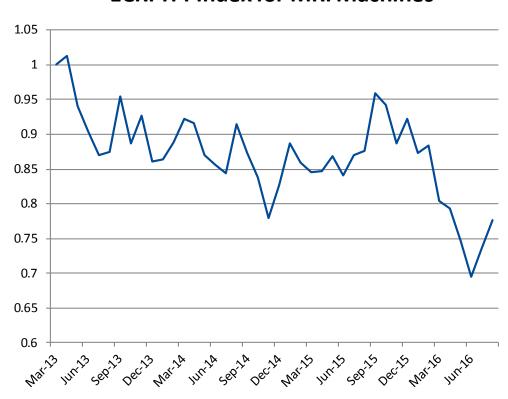
www.ecri.org

- We are collaborating with ECRI to leverage their expertise in medical equipment markets to help us construct new deflators.
- They publish their own price indexes, TPIs, that are constructed much like standard matched-model indexes and hope to learn more about price indexes from us.

ECRIs TPI index: MRI machines



ECRI TPI index for MRI Machines



ECRIs MRI price index shows the downward trend we expect to see in IT segments with rapid rates of product innovation

ECRIs TPI index: CT Scanner



ECRI TPI index for CT Scanners



Their price index for CT Scanners does not show rapid declines

We will study the granular data underlying these indexes to assess its potential usefulness for the construction of price indexes.

Plans



 Continue to monitor research by external parties that might be helpful in identifying new data sources and methods for price index construction.

 With the BLS, continue conversations with traditional data vendors to learn more about potentially useful data sources

 Continue to seek out non-traditional data sources that might help us improve our deflators.